# GOVERNMENT OF INDIA
# EARTH SCIENCES
# LOK SABHA

UNSTARRED QUESTION NO:161
ANSWERED ON:16.11.2016
Research Projects
Mondal Shri Sunil Kumar;Sreeramulu Shri B.

**Will the Minister of EARTH SCIENCES be pleased to state:**

(a) the details and present status of various ongoing research and other projects of the Ministry, project-wise, the likely benefits of these projects;

(b) the details of funds allocated these projects and utilized to during lach of the last three years and the current year so far.

(c) whether the Government proposes more financial assistance for the awareness of earth sciences and if so, the details thereof; and

(d) the details of plan/projects envisaged for the coming three years for earth sciences activities in the country.

## Answer

THE MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)

(a) Towards improving the understanding of the earth system (the atmosphere, ocean, solid earth, biosphere) and their response to the natural and human induced changes, research projects in academic and research institutes in the various areas of Earth System Sciences namely, (1) Atmospheric Science including Climate Science; (2) Geoscience; (3) Ocean Science and Resources and Technology; (4) Hydrology and Cryosphere; (5) Earth System Technology, are supported. The project-wise details and benefits are given at Annexure-1.

(b) The program-wise budget details including allocation and expenditure (Rs. in crores) are as follows.

No Name of Scheme RE 2013-14 Actual 2013-14 RE 2014-15 Actual 2014-15 Rationalized Schemes R.E. 2015-16 Actual 2015-16 BE 2016-17 Exp. as on Sept 2016
1 Atmospheric Observation Systems Services 129.00 117.25 87.00 103.61 Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS) 312.00 278.87 360.00 120.36
2 Atmospheric Process & Modeling 53.00 50.08 64.63 64.39
3 Climate Change Research 30.00 29.82 32.59 32.56
4 High Performance Computing System 104.00 103.02 68.54 68.53 0.50 0.36
5 Airborne Platforms 0.01 0.00 10.00 10 Airborne Platforms for Institute Observations Ocean Research Vessels(APOORV) 80.00 76.46
10 Ocean Research Vessels 55.48 56.47 36.04 36.04

355.00

175.51
6 Ocean Observations 40.00 38.57 45.00 44.49 Ocean Services Technology Observations Resources Modelling and Science (O-STORMS 295.50 279.70
7 Ocean Science & Services 70.00 68.30 71.08 68.5
8 Ocean Survey & Mineral Resources 50.00 41.03 60.43 60.42
9 Ocean Technology 83.52 83.52 51.00 51
11 Polar Sciences & Cryosphere 155.99 155.98 200.00 163.55 123.50 118.66 156.00 90.01
12 Seismological Research 57.00 46.97 74.35 74.56 Seismological & Geosciences (SAGE) 131.50 117.78 150.00 13.59
13 Geosciences 15.00 8.11 53.51 53.5

14 Research, Education Training and Outreach 82.00 76.88 70.83 69.13 70.00 60.99 49.90 10.01
15 Assistance to Autonomous bodies 129.10 70.35
Total 925.00 876.00 925.00 900.28 1013.00 932.93 1200.00 479.93

(c) No, Madam.

(d) In addition to implementation of the above ongoing schemes of the Ministry, it is proposed to take up a set of new programmes recommended by NITI Aayog for implementation during the next three years, as detailed below:-

a) Marine Observation System Along Indian Coast (MOSAIC)
b) Development Ballast Water Treatment Facility
c) Energy from Oceans- Ocean Thermal Energy Conversion (OTEC) Plant at Kavaratti
d) Block level forecasts (around 6000) through 660 district centres
e) Development of high resolution (12 km) weather prediction models through high Performance Computing- 10 Peta flop
f) Customized Forecasts for Tourism/Pilgrimage - 300 destinations spread over the country
g) Modernization of Weather and Climate Services
h) Atmospheric Chemistry.